



Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously Presented) A multilayer packaging film having at least four layers arranged in sequence comprising:

(1) a first layer comprising at least 50% by weight of a copolymer of propene, and at least one α -olefin selected from the group consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1, decene-1 and mixtures thereof, said copolymer having a propene content of at least 60 wt. %, a T_m between about 100°C and about 145°C, a M_w/M_n of between 1 and 5, and n-hexane extractables of less than 5 wt. %;

(2) second and fourth layers each comprising:

(a) at least 10 wt. % of a first copolymer of ethylene and at least one C₄ - C₈ α -olefin, said copolymer having a density of from 0.900 to 0.915 g/cm³ and a melt index of less than 2 dg/min.,

(b) at least 10 wt. % of a second copolymer of ethylene with from 4 to 18 wt. % of a vinyl ester, alkyl acrylate, acrylic or methacrylic acid, and

(c) from 0 to 60 wt. % of a third copolymer of ethylene and at least one C₃ - C₈ α -olefin having a density less than 0.900 cm³ and a melting point of between 65-98°C; and

(3) a third layer comprising at least 80% by weight of at least one copolymer of vinylidene chloride with from 2-20 wt. %, based on said copolymer, of vinyl chloride or methyl acrylate.

2. (Original) The film of claim 1 wherein the first layer comprises a propylene-ethylene copolymer.

3. (Original) The film of claim 1 wherein the first layer comprises at least 75% by weight propylene-ethylene copolymer.

4. (Original) The film of claim 1 wherein said propene content of the first layer copolymer is at least 80% based on the weight of the copolymer.

5. (Original) The film of claim 1 wherein said propene content of the first layer copolymer is at least 90% based on the weight of the copolymer.

6. (Original) The film of claim 1 wherein the first layer consists essentially of propylene-ethylene copolymer.

7. (Original) The film of claim 1 wherein in the copolymer of the first layer the T_m is between about 110°C and 130°C.

8. (Original) The film of claim 1 wherein in the copolymer of the first layer the T_m is between about 120°C and 130°C.

9. (Original) The film of claim 1 wherein in the copolymer of the first layer the n-hexane extractables are less than 4 wt. %.

10. (Original) The film of claim 1 wherein in the copolymer of the first layer the n-hexane extractables are less than 2.6 wt. %.

11. (Original) The film of claim 1 wherein in the copolymer of the first layer the n-hexane extractables are less than 2 wt. %.

12. (Original) The film of claim 1 wherein in the copolymer of the first layer the n-hexane extractables are less than 1 wt. %.

13. (Original) The film of claim 1 wherein in the copolymer of the first layer the M_w/M_n is less than 3.

14. (Original) The film of claim 1 wherein in the copolymer of the first layer the M_w/M_n is between 1.5 and 2.5.

15. (Original) The film of claim 1 wherein in the copolymer of the first layer the Mw/Mn is less than 3 and the n-hexane extractables are less than 2.6 wt. %.

16. (Original) The film of claim 1 wherein in the copolymer of the first layer the Tm is between about 110°C and 130°C, and the n-hexane extractables are less than 2.6 wt. %.

17. (Original) The film of claim 1 wherein in the copolymer of the first layer the Tm is between about 110°C and 130°C, and the Mw/Mn is less than 3.

18. (Original) The film of claim 1 wherein in the copolymer of the first layer the Tm is between about 110°C and 130°C, the Mw/Mn is less than 3 and the n-hexane extractables are less than 2.6 wt. %.

19. (Original) The film of claim 18 wherein in the copolymer of the first layer the Mw/Mn is between 1.5 and 2.5.

20. (Original) The film of claim 18 wherein in the copolymer of the first layer the n-hexane extractables are less than 2 wt. %.

21. (Original) The film of claim 18 wherein in the copolymer of the first layer the n-hexane extractables are less than 1 wt. %.

22. (Currently Amended) A multilayer biaxially oriented heat-shrinkable packaging film comprising:

(1) a first layer comprising at least 50% by weight of a copolymer of propene, and at least one α -olefin selected from the group consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1, decene-1 and mixtures thereof, said copolymer having a propene content of at least 60 wt. %, a Tm between about 100°C and about 145°C, a Mw/Mn of between 1 and 5, and n-hexane extractables of less than 4 wt. %;

(2) a second layer comprising:

(a) at least 10 wt. % of a first copolymer of ethylene and at least one C₄ - C₈ α -olefin, said copolymer having a density of from 0.900 to 0.915 g/cm³ and a melt index of less than 2 dg/min.,

(b) at least 10 wt. % of a second copolymer of ethylene with from 4 to 18 wt. % of a vinyl ester, alkyl acrylate, acrylic or methacrylic acid, and

(c) from 0 to 60 wt. % of a third copolymer of ethylene and at least one C₃ - C₈ α -olefin having a density less than 0.900 g/cm³ and a melting point [less] of between 85-98°C.; and

(3) a transition layer between and in contact with said first layer and said second layer, the transition layer comprising:

(a) at least 20% by weight of a fourth copolymer of propene, and at least one α -olefin selected from the group consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1, decene-1 and mixtures thereof, said copolymer having a propene content of at least 60 wt. %, a Tm between 100°C and 145°C, a Mw/Mn of between 1 and 5, and n-hexane extractables of less than 4 wt. %;

(b) at least 20% by weight of a fifth copolymer of ethylene and at least one C₄ - C₈ α -olefin, said copolymer having a density of from 0.900 to 0.915 g/cm³ and a melt index of less than 2 dg/min., and

(c) from 0 to 60 wt. % of a sixth copolymer of ethylene and at least one C₃ - C₈ α -olefin having a density less than 0.900 g/cm³ and a melting point of between 65-98°C

(4) a third layer that is a moisture barrier layer comprising at least 80% by weight of at least one copolymer of vinylidene chloride with from 2-20 wt. %, based on said copolymer, of vinyl chloride or methyl acrylate.

23. (Original) The film of claim 22 wherein the transition layer comprises at least 50 wt. % of either the fourth copolymer or the fifth copolymer.

24. (Original) The film of claim 22 wherein the transition layer comprises about 3% of the total thickness of the film.

25. (Original) The film of claim 22 wherein the first layer comprises a propylene-ethylene copolymer.

26. (Original) The film of claim 22 wherein the first layer comprises at least 75% by weight propylene-ethylene copolymer.

27. (Original) The film of claim 22 wherein said propene content of the first layer copolymer is at least 80% based on the weight of the copolymer.

28. (Original) The film of claim 22 wherein said propene content of the first layer copolymer is at least 90% based on the weight of the copolymer.

29. (Original) The film of claim 22 wherein the first layer consists essentially of propylene-ethylene copolymer.

30. (Original) The film of claim 22 wherein in the copolymer of the first layer the Tm is about 110°C and 130°C.

31. (Original) The film of claim 22 wherein in the copolymer of the first layer the Tm is between about 120°C and 130°C.

32. (Original) The film of claim 22 wherein in the copolymer of the first layer the n-hexane extractables are less than 4 wt. %.

33. (Original) The film of claim 22 wherein in the copolymer of the first layer the n-hexane extractables are less than 2.6 wt. %.

34. (Original) The film of claim 22 wherein in the copolymer of the first layer the n-hexane extractables are less than 2 wt. %.

35. (Original) The film of claim 22 wherein in the copolymer of the first layer the n-hexane extractables are less than 1 wt. %.

36. (Original) The film of claim 22 wherein in the copolymer of the first layer the Mw/Mn is less than 3.

37. (Original) The film of claim 22 wherein in the copolymer of the first layer the Mw/Mn is between 1.5 and 2.5.

38. (Original) The film of claim 22 wherein in the copolymer of the first layer the Mw/Mn is less than 3 and the n-hexane extractables are less than 2.6 wt. %.

39. (Original) The film of claim 22 wherein in the copolymer of the first layer the Tm is between about 110°C and 130°C, and the n-hexane extractables are less than 2.6 wt. %.

40. (Original) The film of claim 22 wherein in the copolymer of the first layer the Tm is between about 110°C and 130°C, and the Mw/Mn is less than 3.

41. (Original) The film of claim 22 wherein in the copolymer of the first layer the Tm is between about 110°C and 130°C, the Mw/Mn is less than 3 and the n-hexane extractables are less than 2.6 wt. %.

42. (Original) The film of claim 41 wherein in the copolymer of the first layer the Mw/Mn is between 1.5 and 2.5.

43. (Original) The film of claim 41 wherein in the copolymer of the first layer the n-hexane extractables are less than 2 wt. %.

44. (Original) The film of claim 41 wherein in the copolymer of the first layer the n-hexane extractables are less than 1 wt. %.

45. (Canceled) The film of claim 22 further comprising:

 a third layer comprising:

 at least 80% by weight of at least one copolymer of vinylidene chloride with from 2-20 wt. %, based on said copolymer, of vinyl chloride or methyl acrylate.

46. (Currently Amended) The film of claim ~~45~~ 22 further comprising:

 a fourth layer comprising:

- (a) at least 10 wt. % of a seventh copolymer of ethylene and at least one C₄ - C₈ α-olefin, said copolymer having a density of from 0.900 to 0.915 g/cm³ and a melt index of less than 2 dg/min.,
- (b) at least 10 wt. % of a eighth copolymer of ethylene with from 4 to 18 wt. % of a vinyl ester, alkyl acrylate, acrylic or methacrylic acid, and
- (c) from 0 to 60 wt. % of a ninth copolymer of ethylene and at least one C₃ - C₈ α-olefin having a density less than 0.900 g/cm³ and a melting point of between 65-98°C.

47. (Canceled) The film of claim 46 wherein the layers are arranged in contact and in the following sequence: first layer, transition layer, second layer, third layer and fourth layer.

48. (Previously Presented) A multilayer packaging film formable into a pouch by heat sealing for use in food preparation consisting essentially of:

(1) an inner sealing layer comprising at least 50% by weight of a copolymer of propene, and at least one α -olefin selected from the group consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1, decene-1 and mixtures thereof, said copolymer having a propene content of at least 60 wt. %, a T_m between about 100°C and about 145°C, a M_w/M_n of between 1 and 5, and n-hexane extractables of less than 5 wt. %;

(2) a second layer in contact with the inner sealing layer comprising:

(a) at least 10 wt. % of a first copolymer of ethylene and at least one C_4 - C_8 α -olefin, said copolymer having a density of from 0.900 to 0.915 g/cm³ and a melt index of less than 2 dg/min.,

(b) at least 10 wt. % of a second copolymer of ethylene with from 4 to 18 wt. % of a vinyl ester, alkyl acrylate, acrylic or methacrylic acid, and

(c) from 0 to 60 wt. % of a third copolymer of ethylene and at least one C_3 - C_8 α -olefin having a density less than 0.900 g/cm³ and a melting point of between 65-98°C.; and

(3) an optional third layer comprising a protective outer layer.

49. (Original) The film of claim 48 wherein the third layer comprises nylon.

50. (Original) The film of claim 48 wherein the third layer comprises at least 50% by weight of a copolymer of propene, and at least one α -olefin selected from the group consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1, decene-1 and mixtures thereof, said copolymer having a propene content of at least 60 wt. %, a T_m between about 100°C and about 145°C, a M_w/M_n of between 1 and 5, and n-hexane extractables of less than 5 wt. %.

51. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the T_m is between about 110°C and 130°C.

52. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the Tm is between about 120°C and 130°C.

53. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the n-hexane extractables are less than 4 wt. %.

54. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the n-hexane extractables are less than 2.6 wt. %.

55. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the n-hexane extractables are less than 2 wt. %.

56. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the n-hexane extractables are less than 1 wt. %.

57. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the Mw/Mn is less than 3.

58. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the Mw/Mn is between 1.5 and 2.5.

59. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the Mw/Mn is less than 3 and the n-hexane extractables are less than 2.6 wt. %.

60. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the Tm is between about 110°C and 130°C, and the n-hexane extractables are less than 2.6 wt. %.

61. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the Tm is between about 110°C and 130°C, and the Mw/Mn is less than 3.

62. (Original) The film of claim 48 wherein in the copolymer of the inner sealing layer the Tm is between about 110°C and 130°C, the Mw/Mn is less than 3 and the n-hexane extractables are less than 2.6 wt. %.

63. (Original) The film of claim 62 wherein in the copolymer of the inner sealing layer the Mw/Mn is between 1.5 and 2.5.

64. (Original) The film of claim 62 wherein in the copolymer of the inner sealing layer the n-hexane extractables are less than 2 wt. %.

65. (Original) The film of claim 62 wherein in the copolymer of the inner sealing layer the n-hexane extractables are less than 1 wt. %.

66. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the Tm is between about 110°C and 130°C.

67. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the Tm is between about 120°C and 130°C.

68. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the n-hexane extractables are less than 4 wt. %.

69. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the n-hexane extractables are less than 2.6 wt. %.

70. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the n-hexane extractables are less than 2 wt. %.

71. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the n-hexane extractables are less than 1 wt. %.

72. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the Mw/Mn is less than 3.

73. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the Mw/Mn is between 1.5 and 2.5.

74. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the Mw/Mn is less than 3 and the n-hexane extractables are less than 2.6 wt. %.

75. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the Tm is between about 110°C and 130°C, and the n-hexane extractables are less than 2.6 wt. %.

76. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the Tm is between about 110°C and 130°C, and the Mw/Mn is less than 3.

77. (Original) The film of claim 50 wherein in the copolymers of the inner sealing layer and the outer layer the Tm is between about 110°C and 130°C, the Mw/Mn is less than 3 and the n-hexane extractables are less than 2.6 wt. %.

78. (Original) The film of claim 77 wherein in the copolymers of the inner sealing layer and the outer layer the Mw/Mn is between 1.5 and 2.5.

79. (Original) The film of claim 77 wherein in the copolymers of the inner sealing layer and the outer layer the n-hexane extractables are less than 2 wt. %.

80. (Original) The film of claim 77 wherein in the copolymers of the inner sealing layer and the outer layer the n-hexane extractables are less than 1 wt. %.

81. (Previously Presented) The film of claim 1, wherein the film has a shrinkage of more than 20% at 90°C in at least one direction.

82. (Previously Presented) The film of claim 1, wherein the film has a shrinkage of more than 30% at 90°C in at least one direction.

83. (Previously Presented) The film of claim 1, wherein the film has a shrinkage of more than 25% at 90°C in both directions.

84. (Previously Presented) The film of claim 1, wherein the film has a shrinkage of more than 30% at 90°C in a first direction and a shrinkage of more than 44% at 90°C in a second direction.

85. (Previously Presented) The film of claim 1, wherein the film has a shrinkage of more than 32% at 90°C in a first direction and a shrinkage of more than 48% at 90°C in a second direction.

86. (Previously Presented) The film of claim 1, wherein the film consists essentially of four layers.

87. (Previously Presented) The film of claim 1, wherein the four layers are in said sequence and in contact.

88. (Previously Presented) The film of claim 22, wherein the film has a shrinkage of more than 20% at 90°C in at least one direction.

89. (Previously Presented) The film of claim 22, wherein the film has a shrinkage of more than 30% at 90°C in at least one direction.

90. (Previously Presented) The film of claim 22, wherein the film has a shrinkage of more than 25% at 90°C in both directions.

91. (Previously Presented) The film of claim 22, wherein the film has a shrinkage of more than 30% at 90°C in a first direction and a shrinkage of more than 44% at 90°C in a second direction.

92. (Previously Presented) The film of claim 22, wherein the film has a shrinkage of more than 32% at 90°C in a first direction and a shrinkage of more than 48% at 90°C in a second direction.

93. (Canceled) The film of claim 22, wherein the film excludes a core barrier layer.

94. (Previously Presented) The film of claim 46, wherein the film consists essentially of said layers.

95. (Previously Presented) The film of claim 48, wherein the film has a shrinkage of more than 20% at 90°C in at least one direction.

96. (Previously Presented) The film of claim 48, wherein the film has a shrinkage of more than 30% at 90°C in at least one direction.

97. (Previously Presented) The film of claim 48, wherein the film has a shrinkage of more than 25% at 90°C in both directions.

98. (Previously Presented) The film of claim 48, wherein the film has a shrinkage of more than 30% at 90°C in a first direction and a shrinkage of more than 44% at 90°C in a second direction.

99. (Previously Presented) The film of claim 48, wherein the film has a shrinkage of more than 32% at 90°C in a first direction and a shrinkage of more than 48% at 90°C in a second direction.

100. (Currently Amended) The film of claim 48, wherein the film excludes a core oxygen barrier layer.